

REMARKS

Status of the Claims

Claims 1-11 and 13 are pending in this application. Claim 12 has been canceled. Claim 13 has been added to recite that the photothermographic material does not contain hydrazine derivatives. Support for this claim is found in original claim 1. Thus, claim 3 does not raise any new issues that would require a new search or consideration. Applicants respectfully request that the Reply is entered.

Rejection under 35 USC 103(a)

The Examiner rejects claims 1-8 and 10-12 as obvious over Ito et al. USP 6,150,084 (Ito '084) or JP 11-149136 (JP '136) in view of JP 11-194447 (JP '447), Eshelman et al. USP 5,858,637 (Eshelman '637), Lok et al. USP 5,945,270 (Lok '270) and Lok et al. USP 5,912,112 (Lok '112). Applicants traverse the rejection and respectfully request the withdrawal thereof.

The present invention is directed to a photothermographic material that contains photosensitive silver halide, non-photosensitive silver salt of an organic acid, a reducing agent and a binder on one side of a support, wherein the material comprises at least one compound that satisfies item (iv) and at least one of items (i)-(iii), and an organic gold compound. The compound that satisfies one of items (i)-(iii) is not a hydrazine derivative.

The photothermographic material of the present invention has excellent properties, such as higher sensitivity, little increase of fog after long storage, higher Dmax under low temperature and low humidity, and low temperature and humidity dependency in variation of line width during development as shown in Table 17 of the present specification.

Ito '084 discloses a photothermographic material that contains a hydrazine compound. Ito '084 discloses hydrazine compounds as well as compounds of formulas (1) to (3) as useful nucleating agents. Ito '084 fails to disclose or suggest a photothermographic material that does not have a hydrazine compound.

JP '136 discloses a heat developable recording material that contains photosensitive silver halide, a compound of formula 1 as defined in the abstract of JP '136, organic silver salt and a reducing agent. The compound of formula (1) is used as a nucleating agent in JP '136. The preferred embodiment in JP '136 uses hydrazine derivatives in combination with the other compounds.

Neither JP '136 nor Ito '084 discloses using an organic gold compound in combination with a compound of formulas 1, 2 or 3 that satisfies at least one of items (i) to (iii). To remedy the deficiency, the Examiner relies on JP '447, Eshelman '637, Lok '270 and Lok '112. However, although, these references disclose photothermographic materials containing organic gold compounds, these references fail to disclose or suggest that the organic gold

compounds are preferably used in combination with a compound of formula (1), (2) or (3) that satisfies at least one of items (i) to (iii).

As such, Applicants submit that one of ordinary skill in the art would not be motivated to arrive at the present invention from the combination of any one of the secondary references with Ito '084 or JP '136. Thus, no *prima facie* case of obviousness has been established.

Moreover, Applicants have presented in the specification and in a Declaration by Mr. Oikawa that the photothermographic material of the present invention has unexpected superior properties over the cited references. The present invention has low temperature and humidity dependency in variation of line width during development. This phenomenal result is not disclosed, suggested or predictable based on the cited references. The references fail to even consider a low temperature and humidity dependency in variation of line width during development.

Applicants submit a Declaration by Mr. Oikawa in support of the allowability of the claims. Mr. Oikawa conducted comparative experiments showing the unexpected effect of the claimed photothermographic material. The results of the comparative experiments are reported in Table 17 in the Declaration at page 3. Samples 1-4, 1-14, 1-16, 1-18 and 1-20 are embodiments of the present invention, where organic gold compound (G) is used in

combination with a compound of formula (1), (2) or (3) that satisfies at least one of items (i) to (iii). The results show excellent properties, such as higher sensitivity, little increase of fog after long storage, higher Dmax under low temperature and low humidity, and low temperature and humidity dependency in variation of line width during development.

Samples of the present invention have unexpected superior qualities than samples 1-1, 1-2, 1-3, 1-13, 1-15, 1-17 and 1-19 which contain a compound of formula (1), (2) or (3) that satisfies at least one of items (i) to (iii) but have no organic gold compound, and samples 1-6, 1-11 and 1-5 which contain an organic gold compound but have no compound of formula (1), (2) or (3). It is clearly proved that the superior properties of the present invention can be achieved by using both the organic gold compound and the compound of formula (1), (2) or (3) that satisfies at least one of items (i) to (iii) in a photothermographic material.

Mr. Oikawa also states in the Declaration that photothermographic materials containing a hydrazine compound (samples 1-11, 1-12 and 1-5) have inferior properties. Mr. Oikawa states that no one of ordinary skill in the art could have predicted that compounds of formula (1) to (3) only create the superior properties of the present invention when combined with an organic gold compound.

As such, Applicants submit that no one skilled in the art reading these cited references could have predicted that the photothermographic materials containing a gold compound and a compound of formula (1), (2) or (3) that satisfies at least one of items (i) to (iii) have the low temperature and humidity dependency during development. This property of low temperature and humidity dependency is a new and unpredictable finding of the present inventors. As such, the present rejections should be withdrawn.

The Examiner rejects claim 9 as obvious over Ito et al. USP 6,150,084 (Ito '084) or JP 11-149136 (JP '136) in view of JP 11-194447 (JP '447), Eshelman et al. USP 5,858,637 (Eshelman '637), Lok et al. USP 5,945,270 (Lok '270) and Lok et al. USP 5,912,112 (Lok '112) and further in view of Hahm et al. USP 5,962,210. Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants rely on the arguments above regarding the deficiencies in the combination of references. Since, Hahm '210 fails to compensate for the deficiencies, this rejection should also be withdrawn as no *prima facie* case of obviousness has been established. Therefore, dependent claim 9 is allowable for the same reason as independent claim 1.

**Conclusion**

As Applicants have addressed and overcome all rejections in the Office Action, Applicants respectfully request that the rejections be withdrawn and that the claims be allowed.


Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$950.00 is attached to the Notice of Appeal filed concurrently herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Declaration 1.132